CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No: CTCE/BBMP/W.No.02/HSN/CEMENT/2014-15

Date: 08.05.2014

TEST REPORT

CLIENT	:	Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
AGENCY	:	Mr. H.S. Nataraj, Contractor, Bangalore.
NAME OF THE WORK	:	Providing asphalting to Besibata Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/YSD/PH/346/2014-15 Dated: 05.05.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	490 Minutes	Not More than 600 Minutes
3	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.02/HSN/SAND/2014-15 : 08.02.2014

TEST REPORT ON FINE AGGREGATES (SAND)

IS 383-1970 (RA- 2002)

Client : Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.

Agency : Mr. H.S. Nataraj, Contractor, Bangalore.

Name of Work : Providing asphalting to Beedhara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.

Reference : BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014

Date of Testing : 08.02.2014

Material : Sand Total Wt. of Aggregates in gms 2000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	100	5.00	5.00	95.0	90-100
2.36	202	10.10	15.10	84.9	75-100
1.18	450	22.50	37.60	62.4	55-90
600 Micron	430	21.50	59.10	40.9	35-59
300 Micron	482	24.10	83.20	16.8	8-30
150 Micron	252	12.60	95.80	4.2	0-10

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No: CTCE/BBMP/W.No.02/HSN/AGG/2014-15

: 08.02.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.

Agency : Mr. H.S. Nataraj, Contractor, Bangalore.

Name of Work : Providing asphalting to Besibara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.

Reference : BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014

Date of Testing : 08.02.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms 25900

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1020	3.94	3.94	96.06	95-100
20	16685	64.42	68.36	31.64	30-70
10	5235	20.21	88.57	11.43	10-35
4.75	2455	9.48	98.05	1.95	0-5

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.02/HSN/STEEL/2014-15

15.05.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Agency	:	Mr. H.S. Nataraj, Contractor, Bangalore.
Name of the work	:	Providing asphalting to Besthara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.
Reference	:	BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014
Date of Test	:	15.05.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	510	552	13.05	O.K	O.K

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No: CTCE/BBMP/W.No.02/HSN/STEEL/2014-15 15.05.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Agency	:	Mr. H.S. Narasaj, Contractor, Bangalore.
Name of the work	:	Providing asphalting to Besthara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.
Reference	:	BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014
Date of Test	:	15.05.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	556	13.25	O.K	O.K

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.02/HSN/CUBE/2014-15 12.06.2014

TEST REPORT ON CONCRETE CUBES

Client	: Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore
Agency	: Mr. H.S. Nataraj, Contractor, Bangalore.
Name of the work	: Providing asphalting to Besthara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.
Reference	: BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	15.05.2014	12.06.2014	8.152	480.2	21.34
2	15.05.2014	12.06.2014	8.256	499.6	22.20
3	15.05.2014	12.06.2014	8.398	515.4	22.91

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No: CTCE/BBMP/W No 02/HSN/WMM/Gradation/2014-15 09.06.2014

GRADATION FOR WMM
MORTH TABLE-400-II

Client : Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.

Agency : Mr. H.S. Nataraj, Contractor, Bangalore.

Name of Work : Providing asphalting to Beschara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.

Reference : BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014

Date of Testing : 09.06.2014

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): 26800

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	985	985	3.7	96.3	95-100
22.4	6215	7200	26.9	73.1	60-80
11.2	6315	13515	50.4	49.6	40-60
4.75	3595	17110	63.8	36.2	25-40
2.36	2565	19675	73.4	26.6	15-30
0.600	2545	22220	82.9	17.1	8-22
0.075	3080	25300	94.4	5.6	0-8

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Job No.: CTCE/BBMP/W.No.02/HSN/SDBC/Bit/2014-15 16.06.2014

BITUMEN CONTENT DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX

As per IRC:SP:11-1984

CLIENT	Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
AGENCY	Mr. H.S. Nataraj, Contractor, Bangalore.
NAME OF THE WORK	Providing asphalting to Besthara Bheedhi main road in Ward No.02 of Yelahanka Sub Division , BBMP, Bangalore.
REFERENCE	BBMP/AEE/YSD/PR/346/2014-15 Dated: 05.05.2014
SAMPLE I/D	Besthara Bheedhi main road in Ward No.02.
DATE OF TESTING	16.06.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474.5	474.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	25.5	25.50
7. Bitumen content in %	5.10	5.10
8. Average	5.10	

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

16.06.2014

Job No.: CTCE/BBMP/W.No.02/HSN/SDBC/Bit/2014-15

GRADATION DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX

As per IS2386 and IRC:SP:11-1984

CLIENT	Asst. Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
AGENCY	Mr. H.S. Nataraj, Contractor, Bangalore.
NAME OF THE WORK	Providing asphalting to Besthara Bheedhi main road in Ward No.02 of Yelahanka Sub Division ,BBMP, Bangalore.
REFERENCE	BBMP/AEE/YSD/TR/346/2014-15 Dated: 05.05.2014
SAMPLE I/D	Besthara Bheedhi main road in Ward No.02.
DATE OF TESTING	16.06.2014

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-15 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
13.2	0	0	0	100	100
9.5	35.26	7.43	7.43	92.57	90-100
4.75	263.5	55.53	62.96	37.04	35-51
2.36	45.85	9.66	72.63	27.37	24-39
1.18	32.25	6.80	79.42	20.58	15-30
0.3	38.98	8.21	87.64	12.36	9-19
0.075	32.58	6.87	94.50	5.50	3-8

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-15 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
st be reported wi	0	0	0	100	100
9.5	38.56	8.13	8.13	91.87	90-100
4.75	262.5	55.32	63.45	36.55	35-51
2.36	50.25	10.59	74.04	25.96	24-39
1.18	32.58	6.87	80.90	19.10	15-30
0.3	26.32	5.55	86.45	13.55	9-19
0.075	36.52	7.70	94.15	5.85	3-8

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